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ABSTRACT

A Writing Anxiety Scale (WAS) was developed. A literature review and interviews with writing instructors identified nine components of writing behavior (Empathy, Expression, Evaluation by Others, Motivation, Organization, Procrastination, Self-Esteem, Technical Skills, and Writing Anxiety). A pool of 146 items were written to reflect the components. Eight raters sorted the items into the 9 categories; 103 items with an agreement of 6 or better were retained. In experiment one the WAS, the Multiple Affect Adjective Checklist (MAACL) Anxiety Scale, and a self-rating scale of behavioral sketches of the subscales were given to 117 undergraduates. Analyses of frequency of endorsement, Cronbach's alpha, and correlations with experimental scale support sufficient psychometric strength to warrant further refinement. In experiment two, 91 subjects replicated the psychometric properties of the WAS found in experiment one. Convergence with a measure of Writing Apprehension and a Writer's Block Questionnaire were demonstrated. (Contains 8 references and 5 tables.) (Author/SLD)

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Development and Initial Evaluation of a Measure of Writing Anxiety

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Running head: Writing Anxiety

Experiment 1 is to be presented at the American Psychological Association Convention in August, 1993; Experiment 2 was presented at the American Psychological Society Convention in June, 1993.

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Development and Initial Evaluation of a Measure of Writing Anxiety

Abstract

A Writing Anxiety Scale (WAS) is developed. Literature review and interviews with writing instructors identified nine components of writing behavior (Empathy, Expression, Evaluation by Others, Motivation, Organization, Procrastination, Self-Esteem, Technical Skills, and Writing Anxiety). A pool of 146 items were written to reflect the components. Eight raters sorted the items into the nine categories; 103 items with six or better agreement were retained. In experiment one the WAS, the MAACL Anxiety Scale, and a self-rating scale of behavioral sketches of the subscales were given to 117 undergraduates. Analyses of frequency of endorsement, Cronbach's alpha, and correlations with experimental scales support sufficient psychometric strength to warrant further refinement. In experiment two 91 subjects replicated the psychometric properties of the WAS found in experiment one. Convergence with a measure of Writing Apprehension and a Writer's Block Questionnaire were demonstrated.

Development and Initial Evaluation of a Measure of Writing Anxiety

Although various labels have been applied to psychological aspects of writing problems such as "writing-anxiety" (eg., Grundy, 1989), "writing apprehension" (eg., Daly & Wilson, 1983), and "writer's block" (eg., Rose, 1984), little is known about the extent of the psychological and behavioral dimensions of such problems among college students. Authors speculate that some writing problems range from temporary occurrences which most people experience (Smith, 1982) to extreme problems which can affect students' career choices (Daly & Shamo, 1978; Rose, 1984). In order to explore the behavioral and psychological dimensions of writing behavior and to measure the extent that those dimensions may interfere with effective writing, the Writing Anxiety Scale is developed.

Experiment 1

The Writing Anxiety Scale (WAS) is developed following the sequential item selection strategy outlined by Jackson (1970). On the basis of relevant literature (e.g., Boice, 1983; Daly & Shamo, 1978; Daly & Wilson, 1983; Rose, 1984; Smith, 1982) and interviews with instructors of writing courses, nine components of the process of writing were identified. These components are empathy, expression, evaluation by others, motivation, organization, procrastination, self-esteem, technical skills, and writing anxiety.

Insert Table 1 about here

In this experiment items were written and rated for content to reflect the nine components. Reliability, content validity, and divergent validity were measured.

Method

Using the subscale descriptions the authors and an assistant independently wrote true-false items to measure each of the nine components. A pool of 146 items was developed. These 146 items were given to eight volunteer raters in eight random orders together with the subscale descriptions. These raters were asked to assign each item to one of the nine subscales on the basis of the descriptions. Those items in which six or more of the eight agreed on the subscale assignment were retained for the experimental scale. Forty-three items were dropped leaving a final experimental scale of 103 items. Subscales ranged from eight to 18 items.

Subjects in experiment one were 117 undergraduate students. A majority of subjects were freshmen students in their first semester of college. In addition to the WAS subjects were also given the MAACL (Zuckerman & Lubin, 1965) which includes a self-report measure of general anxiety. The MAACL anxiety measure was used to evaluate the discriminative validity of the WAS. To evaluate the content validity of the WAS and its subscales, subjects were given personality and behavior sketches based on the subscale descriptions and were asked to rate on five-point

scales how much each of the sketches describes themselves.

Results

Frequency of endorsement of items indicates that the least frequent item had an endorsement of 9.45% which is within acceptable limits (Jackson, 1970).

The descriptive statistics and alpha coefficients for the WAS and its subscales are presented in Table 2.

Insert Table 2 about here

Pearson correlations of the subscales with the WAS total score, the MAACL anxiety scale, and the self-ratings on the Sketches are presented in Table 3.

Insert Table 3 about here

Discussion

This initial evaluation of the WAS indicates the measure has promise with the possible exception of the Organization subscale which lacks adequate internal consistency in these data. The WAS and several of its subscales correlated significantly with the MAACL; however, the magnitude of the correlations were sufficiently low to indicate the WAS is not a mere measure of general anxiety as measured by the MAACL. The correlations of the Sketches with the WAS and their respective subscales were all significant but not as strong as expected. Support for the

validity of the WAS and its subscales can be found in the observation that the Sketch correlations were substantially higher than the MAACL correlations for each of the WAS subscales.

Experiment 2

This study replicates the initial evaluation and analyzes the convergent validity of the WAS with other measures. The other measures are the Writing Apprehension Test (Daly & Miller, 1975) and the Writer's Block Questionnaire (Rose, 1984).

The Writing Apprehension Test (Daly & Miller, 1975) is a 26-item, Likert scale measure which was developed to measure writing apprehension. Although the scale uses the label "apprehension," the authors interchange the word "anxiety" and "apprehension" in the text (Daly & Miller, 1975).

The Writer's Block Questionnaire (Rose, 1984) presents subjects with 24 written statements which also uses a Likert scale asking subjects to report the percentage of time the statements apply to them. The questionnaire items are subgrouped into five subscales. The Blocking Subscale has seven items, the Lateness Scale (i.e., missing deadlines) has two items, the Premature Editing Subscale (i.e., editing too early in the composing process) has three items, the Strategies for Complexity Subscale (i.e., strategies for interpreting and writing on complex material) has five items, and the Attitudes toward Writing Subscale (i.e., feelings and beliefs about writing and evaluation) has seven items (Rose, 1984). Thus, a major weakness of these subscales is the fewness of items.

Method

Ninety-one subjects (47 females and 44 males) were given the Writing Anxiety Scale (WAS), the Writing Apprehension Test (Daly & Miller, 1975), and the Writer's Block Questionnaire (Rose, 1984) which has subtests to measure Blocking, Lateness, Premature Editing, Strategies for Complexity, and Attitudes toward writing. Low scores on the Writing Apprehension Test indicate high apprehension. On the Writer's Block Questionnaire subscales low scores reflect negative endorsement of items about writing with the exception of the Attitudes subscale in which low scores indicate positive attitudes.

Results

Analyses of frequency of item endorsement indicate the least endorsed item had a frequency of 9.36% which is within acceptable limits (Jackson 1970). The descriptive statistics and alpha coefficients for experiment 2 data are presented in Table 4.

Insert Table 4 about here

The Writing Apprehension test correlated significantly with the WAS and all its subscales. The highest correlations were with Self-Esteem (r=-.70), Expression (r=-.68), Motivation (r=-.65), Writing Anxiety (r=-.55), and Evaluation by Others (r=-.55.).

Correlations of the Writer's Block Questionnaire reveals that all the correlation with the WAS and its subscales are

significant with exception of Premature Editing which did not correlate significantly with the WAS and subscales other than Writing Anxiety.

Insert Table 5 about here

Discussion

The initial evaluation and the replication indicate that the WAS and its subscales have sufficient psychometric strength to warrant continued refinement. Cronbach's alpha coefficients were similar between the two experiments. The Organization subscale remained the weakest. Validity evidence is mixed from these studies; whether the fault lies with the WAS itself, with the experimental Sketches measure, or with the previously developed measures needs to be evaluated. Interestingly the Lateness measurement of the Writer's Block Questionnaire correlated the lowest with our Procrastination subscale. Given that the Lateness measure has only two items makes this finding difficult to interpret.

Refinement of the WAS will include item analyses to eliminate items in order to increase internal consistency, investigation of gender relationships, and evaluation of the capacity of the WAS to predict <u>in vivo</u> writing behaviors.

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Table 1

Components of the Writing Process

EMPATHY: Empathy refers to the ability to adapt writing styles to different types of readers and to the accuracy of a writer's assessment that the reader understands the intended communication.

EVALUATION BY OTHERS: This category focusses on external reactions of others to writing. The two main components are concern about negative criticism from other people about one's writing ability and a fear of revealing information too personal about oneself in a written product.

EXPRESSION: Expression involves the process of putting knowledge and ideas into written language. It is the process of articulating in written form a writer's intended communication.

MOTIVATION: Motivation manifests itself in such things as interest in writing and/or investment in developing good writing skills.

ORGANIZATION: Organization refers to the preparation which occurs before writing begins. Library research, outlining ideas, and organizing concepts are examples of such preparations.

PROCRASTINATION: Writing procrastination involves behaviors which delay writing. The delay may come at the beginning, the continuation, and/or the completion of writing.

SELF-ESTEEM: Self-esteem focusses on the internal effects of writing. A writer's evaluations of her/his own writing may contribute to or detract from self-esteem. This component assesses whether there a sense of success or failure associated with written products.

TECHNICAL SKILLS: This is the perceived level of preparation in the techniques and tools of writing. Poor preparation in spelling, vocabulary, and grammar make writing burdensome. Bad handwriting and/or typing skills are also included.

WRITING ANXIETY: This is a negative psychological reaction to the process of writing formal papers. Writing anxiety is conceptualized as primarily an emotion with psychological and physiological components. The psychological components involve anxiety, fear, dread, and so forth. The physiological aspects which may or may not be experienced include such things as stomach upset, sweating, trembling, and headaches.

Table 2

Descriptive Statistics and Alpha Coefficients for the WAS Subscales and Total Score: Experiment 1

	EM	EX	MO	OE	OR	PR	SE	TS	WA	WAS
No of items	8	12	18	11	8	11	9	18	8	103
Mean	2.55	4.53	7.47	5.73	3.09	6.57	4.15	5.34	3.42	42.82
SD	2.06	3.54	3.58	2.14	1.65	2.65	1.16	3.32	2.04	14.19
alpha	.696	.849	.804	.674	.362	.751	.784	.776	.686	.795

Note: N=117; high scores indicate endorsement of the items; EM=Empathy, EX=Expression, MO=Motivation, OE=Evaluation by Others, OR=Organization, PR=Procrastination, SE=Self-Esteem, TS=Technical Skills, WA=Writing Anxiety, WAS=total score

Table 3

Correlations of the WAS and Subscales with MAACL Anxiety and Sketch Ratings

	EM	EX	MO	OE	OR	PR	SE	TS	WA	WAS
WAS	.624	.809	.704	.538	.371	.645	.398	.691	.635	1.00
MAACL Anxiety	.259	.256	.186	.365	.170	.012	.083	.195	.299	.362
Sketch Ratings	.382	.622	.343	.543	.285	.633	.493	.716	.619	.791

Note. N=117; correlations above .180 are statistically significant at $p<.05$ or better; EM=Empathy, EX=Expression, MO=Motivation, OE=Evaluation by Others, OR=Organization, PR=Procrastination, SE=Self-Esteem, TS=Technical Skills, WA=Writing Anxiety, WAS=total score

Table 4

Descriptive Statistics and Alpha Coefficients for the WAS Subscales and Total Score: Experiment 2

	EM	EX	MO	OE	OR	PR	SE	TS	WA	WAS
No of items	8	12	18	11	8	11	9	18	8	103
Mean	2.13	4.14	6.38	4.10	3.15	6.97	1.92	4.80	3.66	36.96
SD	2.02	3.11	3.38	2.34	1.61	2.36	2.12	3.51	2.10	15.51
alpha	.718	.714	.768	.669	.321	.692	.801	.818	.714	.842

Note: N=91; high scores indicate endorsement of the item; EM=Empathy, EX=Expression, MO=Motivation, OE=Evaluation by Others, OR=Organization, PR=Procrastination, SE=Self-Esteem, TS=Technical Skills, WA=Writing Anxiety, WAS=total score

Table 5

Correlations of the WAS and Subscales with Experimental Scales

	EM	EX	MO	OE	OR	PR	SE	TS	WA	WAS
WAS	.627	.825	.726	.729	.532	.455	.823	.652	.702	1.00
Writ App Test	-.461	-.681	-.653	-.545	-.292	-.453	-.701	-.358	-.551	-.761
Writ Block Q										
Attitudes	.472	.772	.764	.581	.273	.445	.758	.410	.563	.827
Blocking	-.393	-.537	-.439	-.470	-.371	-.427	-.670	-.340	-.599	-.681
Lateness	-.253	-.357	-.312	-.318	-.241	-.262	-.437	-.326	-.355	-.461
Pre Edit	.092	.005	.062	-.084	-.148	.008	-.061	-.071	-.283	-.063
Strat Comp	-.361	-.527	-.480	-.530	-.393	-.390	-.577	-.394	-.575	-.674

Note: N=91; correlations above .180 are statistically significant at $p<.05$ or greater; EM=Empathy, EX=Expression, MO=Motivation, OE=Evaluation by Others, OR=Organization, PR=Procrastination, SE=Self-Esteem, TS=Technical Skills, WA=Writing Anxiety, WAS=total score; experimental scales are Writing Apprehension Test, Writers Block Questionnaire; Attitudes toward Writing, Blocking, Lateness, Premature Editing, and Strategies for Complexity